

## 1 **Keeping fit**

2 original at

3 <http://www.economist.com/node/21543129>

4 Exercise protects against many illnesses, from heart attacks and dementia  
5 to diabetes and infection.

6 How it does so, however, remains surprisingly mysterious. But a paper  
7 just published in *Nature* by researchers from the University of Texas sheds  
8 some light on the matter.

9 The researchers think that exercise works its magic, at least in part, by  
10 promoting autophagy. This process, whose name is derived from the  
11 Greek for "self-eating", is a mechanism by which surplus, worn-out or  
12 malformed proteins are broken up for scrap and recycled.

13 The results of the experiments suggest that manipulating autophagy may  
14 offer a new approach to treating diabetes. The research is also suggestive  
15 in other ways.

16 Autophagy is a hot topic in medicine, as biologists have come to realise  
17 that it helps protect the body from all kinds of problems. Most intriguingly  
18 of all, it seems that it can slow the process of ageing. An increased level  
19 of autophagy, brought on by the stress of living in a constant state of  
20 near-starvation, is arguably the mechanism responsible for this life  
21 extension.

22 There are already a few people who live on near-starvation diets in order  
23 to live longer. However, the recently published paper suggests a similar  
24 effect might be gained in a much more agreeable way: via vigorous  
25 exercise.

## 1 Questions

- 1) What does the *pronoun* 'it' in line 6 refer to?
- 2) Paraphrase the idiom 'shed some light on the matter' (lines 7 and 8).
- 3) Explain the meaning of 'autophagy' (line 10). Hint: some of the words you may need to do that are listed in the vocabulary section below.
- 4) What practical implications might autophagy have in medicine according to the text?
- 5) What are, according to the article, the two ways that seem to extend one's life by using the principle of autophagy?
- 6) Are there any people trying to extend their life by resorting to autophagy?
- 7) What is your attitude to exercise? Do you do any exercise? If so, do you enjoy it?

### Vocabulary

**surplus** (line 11) – something that remains above what is used or needed

**scrap** (line 12) – an old, discarded, or rejected item or substance for use in reprocessing or as raw material, as old metal that can be melted and reworked

**bring on** (line 19) – to make happen, induce or cause

**starvation** (lines 20 and 22) – suffering or death caused by lack of food

You can find additional explanation and more examples to help you understand and use English words and phrases at <http://dictionary.reference.com>, <http://dictionary.cambridge.org/>, <http://www.merriam-webster.com/> or <http://www.ldoceonline.com/>

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Tým jazykové skupiny Spěváček:

